

Commissioner: Michael D. Jarrett

Board: William E. Applegate, III, Chairman  
John H. Burriss, Vice Chairman  
Richard E. Jabbour, DDS, Secretary

Toney Graham, Jr., MD  
Sandra J. Molander  
John B. Pate, MD  
Robert J. Stripling, Jr.

Promoting Health, Protecting the Environment

medley farm  
6.4 V.3

July 9, 1992

Ralph Howard  
Remedial Project Manager  
U.S. EPA, Region IV  
345 Courtland Street  
Atlanta, GA 30365

RE: Medley Farms Remedial Design Planning Documents

Dear Mr. Howard:

The Remedial Design Workplan, Field Sampling and Analysis Plan, Quality Assurance Project Plan and the Health and Safety Plan for the Medley Farms Site have been reviewed. Comments on all documents will be included in this letter.

### REMEDIAL DESIGN WORKPLAN

*(To EPA)*  
• Page 1-2, Section 1.2

The document states that the final RD Workplan will be an enforceable part of the Medley Farms RD/RA Consent Decree. In this case, written approval of the document from the State should be given before EPA gives the Steering Committee final approval.

✓ Here (2.3) or elsewhere, needs to be a discussion  
• Page 2-5, Section 2.3.1st Paragraph

The Risk Assessment indicated that the observed concentrations of VOCs and SVOCs in the unsaturated soils posed no health threat in the present conditions, but could pose a threat under the future use scenario.

✓ Yes  
• Page 2-9, Section 2.5, Surface Water

The data and locations of surface water and sediment samples from both the RI and the Feb. 1992 sampling should be discussed. Show on the Data Point Location Map, Plate 1, the location of the Feb. 1992 sampling points, ie. RW05, RW06, SS05 and SS06.

✓ Yes  
VALID  
• Page 2-21, Section 2.8.2, Last Paragraph

What is the plan of action if the jet-pump system does not induce flow out of the upper bedrock by placing them in transition zone?

10295041



Mr. Ralph Howard  
Medley Farms Site  
July 9, 1992  
Page 2

• Page 3-1, Section 3.1

A point of interest needs to be cleared up. The ROD states on Page 94 Section 11.0: "review the existing groundwater monitoring system to insure proper monitoring of groundwater; if deemed necessary, additional monitoring wells will be installed to mitigate any deficiencies in the existing groundwater monitoring system." From the ROD to the CD, this statement has changed to the northeast area of site and in some instances RMT refers to the northwest portions of the site. The ROD does not mention any particular area, but refers to the whole site. I believe all monitoring wells should be sampled at least one more time. From the Feb. 1992 data, the plume has moved and needs to be defined as the ROD implies. Some of the wells that had hits of contaminants below the MCLs may now be at or above MCLs. The work that RMT proposes in the Northeast area is needed. However, the horizontal extent of the plume in both shallow and bedrock wells needs to be defined for the whole site to insure the proper design of the extraction well network. After sampling all wells, the results may indicate additional wells may be needed in other areas in addition to those proposed in the Northeast area.

VALID  
(?)

• Page 3-2, Section 3.3, 2nd Paragraph

The ROD states that the SVE system air emissions will be treated by the use of an in-line carbon adsorption system. Whether the system will be needed is not a decision left to the PRPs for this site.

NEED FOR OFF-GAS  
↑ ACTUALLY, ROD SAYS IT WILL BE ADDRESSED IN DESIGN,  
↑ FOR GW, "DETAIL THAT NEEDS TO BE ADDRESSED"

• Page 4-1, Section 4.1, Last Bullet

The remediation goals will be updated with any new or changed MCLs published in the federal registrar.

NO  
CD

## FIELD SAMPLING AND ANALYSIS PLAN

• Page 1-5, Section 1.1

See the above comment about Page 3-1 of the RD Workplan concerning the requirements of additional groundwater sampling/investigations. Also on page 1-5 in Section 1.3, the ROD does not state that groundwater quality will be better defined in northeast quadrant.

• Page 3-2, Section 3.1

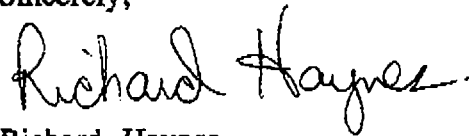
The State believes it would be better to discharge to Jones Creek directly rather through it tributary from a ecological and environmental standpoint. Therefore, the two proposed sampling points for surface water and sediment should be moved to Jones Creek. The downstream location should be located near BW4. Since the creek has had only one

Mr. Ralph Howard  
Medley Farms Site  
July 9, 1992  
Page 3

sampling round, sampling Jones Creek will give the data necessary to make a decision on the environmental impact of groundwater discharging to the creek while at the same time provide data to use in the NPDES process.

Attached are additional comments from our Hydrogeology Section. If you have any questions, please call me at (803) 734-5487.

Sincerely,

A handwritten signature in black ink that reads "Richard Haynes". The signature is written in a cursive style with a horizontal line at the end.

Richard Haynes  
Site Engineer  
Site Engineering Section  
Bureau of Solid and Hazardous Waste  
Management

cc: Billy Britton



Commissioner: Michael D. Jarrett

Board: William E. Applegate, III, Chairman  
John H. Burriss, Vice Chairman  
Richard E. Jabbour, DDS, Secretary

Promoting Health, Protecting the Environment

To my Graham, Jr., MD  
Sandra J. Molander  
John B. Pate, MD  
Robert J. Stripling, Jr.MEMORANDUM

TO: Richard Haynes, Engineer  
Site Engineering Section  
Division of Site Engineering and Screening  
Bureau of Solid and Hazardous Waste Management

FROM: Billy Britton, Hydrologist *Billy Britton*  
Superfund and Solid Waste Section  
Division of Hydrogeology  
Bureau of Solid and Hazardous Waste Management

DATE: July 17, 1992

RE: Revised Remedial Design Workplan, Field Sampling and  
Analysis Plan, Quality Assurance Project Plan, and  
Health and Safety Plan  
Medley Farm NPL Site  
SCD 980 558 142  
Cherokee County

The referenced documents have been reviewed, as requested. With the exception of comment number one, all comments regarding the previous workplan documents made in a memorandum from the writer to Haynes dated April 3, 1992 appear to have been addressed.

Comment number one of the April 3, 1992 memorandum reiterated a previous comment made in a memorandum from Gorman to Haynes dated May 1, 1991 regarding the extent of groundwater contamination in the saprolite and bedrock northeast of well pair SW-108/BW-108 and in the bedrock below the southwest portion of the site. This comment should be addressed.

A few additional comments also appear necessary. They are as follows:

- 1) The Division of Hydrogeology (the Division) does not agree with the proposed method of disposal for drilling fluids and groundwater produced by well development and purging by allowing them to infiltrate into the subsurface from shallow excavations. The Division believes that it is inappropriate to allow all investigation derived waste to be treated as non-hazardous without proper documentation. Therefore, we request that all groundwater produced from well development and purging activities, drilling fluids, and cuttings collected from below the water-table be contained for proper disposal as described in the USEPA

**Region IV Environmental Compliance Branch Standard-  
Operating Procedures and Quality Assurance Manual.**

- Check  
FSOP*
- 2) Page 5-17 of the Field Sampling and Analysis Plan states that the four proposed monitoring wells will be developed until discharge is sediment-free, or the change in specific conductance and temperature between two successive well volumes is less than ten percent. This statement should be modified to state that the wells will be developed until they produce sediment-free water and the change in specific conductance and temperature between two successive well volumes is less than ten percent.
- 3) In the third sentence of the fourth paragraph on page 2-8 in the Remedial Design Workplan "only two" should be replaced with "four".

*WHO  
CAPES? ONLY  
2 AREAS (POINTS  
ARE COLLOCATED...)*

DYNAMAC/B&V

B&amp;V WASTE SCIENCE AND TECHNOLOGY CORP.

TEL (404) 392-9227

107 PERIMETER CENTER WEST  
SUITE W 212  
ATLANTA, GEORGIA 30338  
FAX (404) 392-9289

## F A C S I M I L E

PROJECT NO.: 4525DATE: 7-17-92TO: Ralph HowardNAME OF FIRM: EPA Region IVFACSIMILE NO.: 347-1695VERIFICATION NO.: 347-7791SENDER'S NAME: Keith Matteson

BVWST TELECOPY NO.: (404) 392-9289

VERIFICATION NO.: (404) 392-9227

THIS TRANSMITTAL CONSISTS OF 3 PAGES (INCLUDING COVER SHEET).

## COMMENTS:

Attached are BVWST comments on the  
Medley Farm RD Work Plan. Call if  
you have comments or questions.

### General Comments

Overall, this workplan appears to satisfactorily address the items discussed, except for those items found in the specific comments section of this report. However, this document review report does not assess whether or not the workplan adequately addresses all the items required by the Record of Decision.

### Specific Comments

#### Comment 1, Page 2-1, Paragraph 2.2

OK This section explains that drums and excavated soils were transported to a TSD facility. Explain the fate of the contaminated lagoon water.  
*mention*

#### Comment 2, Page 2-5, Paragraph 2.3

FX Explain whether or not constituents of concern were detected in off-site monitoring wells.

#### Comment 3, Page 2-8, Paragraph 2.4.2

USEFUL X Explain when discussing ground water production in saprolite if the bailer referred to is a four inch or two inch bailer. The current discussion regarding ground water production in saprolite is somewhat ambiguous as written.

#### Comment 4, Page 2-19, Paragraph 2.8

NOT USEFUL X This section references a technical memorandum in Appendix B as the reference for the soil vapor extraction discussion. In this memorandum, it is stated that a risk level of  $10^{-4}$  to  $10^{-6}$  can be attributed to the presence of PCBs in soils. But, no where in Section 2.5 was it mentioned that PCBs were present in the soils. Discuss presence of PCBs in the soils in Section 2.5.  
*FALSE*

#### Comment 4, Page 3-5, Paragraph 3.5

OK VALID This discussion does not provide adequate discussion as to the procedures proposed to be used during the treatability studies. A more in depth discussion including such things as the type of metal precipitation process and the type filtration to be tested should be included as a minimum. An alternative would be to reference a small workplan for the treatability studies.

#### Comment 5, Page 3-2, Paragraph 3.3

BOGUS. Section 120 under "Permits and Enforcement" of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) states that no permits are required for air stripping as long as the remediation action is completed onsite and in compliance with Section 120. Review CERCLA Section 120 and revise Section 3.3 to reflect the law.

#### Comment 6, Page 4-6, Paragraph 4.3.9

NOT VALID It should be noted that the construction schedule should provide for a working

JUL 09 '92 05:10PM B&amp;V WASTE SCIENCE KC

P.3

*no* treatment system to be constructed within the time constraints outlined in the ROD.

**Comment 7, Page 6-2, Paragraph 6.14**

Air quality permits are not required for a Superfund site. See Comment 5.

**Comment 8, Page 7-1, Paragraph 7.4**

Explain if the existing health and safety plan will be revised to address the specific needs of the construction workers in accordance with CFR 1910.120 or will it also make the provisions necessary to be in accordance with CFR 1926 in addition to CFR 1910.120.

**Comment 9, Page 9-3, Paragraph 9.2, Second Bullet**

*OK-  
see  
QAPP* This section alludes to the fact that data qualifiers will be assigned by "QA/QC reviewers," but no discussion of data validation appears in the data management section. Include a section describing data validation procedures. For example, mention should be made in reference to the "National Functional Guidelines for Data Validation."

**Comment 10, Appendix B, Page 6 of Technical Memorandum**

*VALID* It is mentioned that the risk level due to exposure to soils is acceptable based on the future residential use scenario, and that this risk level are due primarily to the presence of PCBs in the soils. Explain whether or not the risk level will change due to remedial action activities. For example, during the installation of the ground water extraction wells, there may be a possibility of PCB contaminated soils becoming air borne which could create a inhalation pathway.

Alfreda Freeman  
Toxics Unit

ppb:

200/430/1,900

in H/A holes

RREL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF RESEARCH AND DEVELOPMENT  
RISK REDUCTION ENGINEERING LABORATORY  
CINCINNATI, OHIO 45268

DATE: July 21, 1992

SUBJECT: Comments Concerning the Draft Workplan for the Remedial Design for the Medley Farm Site by RTM

FROM: *for* Michelle Simon *Joan Colson*  
Chemical Engineer, Regional Support Section  
Technical Support Branch

TO: Ralph O. Howard  
Region IV Project Manager - Medley Farm Site

THRU: Joan Colson *gc*  
Leader, Engineering Technical Support Center  
Technical Support Branch

I have reviewed the subject document as you requested in your June 23, 1992 memo. RTM's proposal appears to be thorough, reasonable and consistent with their March 6, 1992 technical memorandum as reviewed by RREL.

I concur with their recommendation allowing for time to obtain air emission and water discharge permits or an exception from them.

cc: Ed Bates



(including cover)

**COMMENTS:**

**Transmitted From:** Risk Reduction Engineering Laboratory  
Superfund Technology Demonstration Division  
Phone: FTS 684-7519, (513) 569-7519  
FAX: FTS 684-7676, (513) 569-7676



EPA- GW  
7/30/92

P U L L E D F R O M T H E M U L T I M A T E  
DOCUMENT.....RDWPGWCM.DOC.....

Preliminary Comments on the Remedial Design WorkPlan for the Medley Farm Site at Gaffney, South Carolina

TO: Ralph Howard, Jr., Remedial Project Manager North Superfund Management Section  
FROM: Jennifer Herndon, Hydrogeologist Ground Water Technology Support Unit  
THROUGH: David W. Hill, Acting Chief Ground Water Technology Support Unit

The following comments are provided after reviewing the Remedial Design Work Plan for the Medley Farm Site at Gaffney, South Carolina.

In general, the document is vague and does not provide specifics on the remedial design. It is assumed that more specific information on the extraction system and contaminant concentrations in ground water, soil, sediment, and surface water will be provided in the 30 percent Remedial Design document.

✓ Covered  
1a  
The furthestmost downgradient wells to the south and southeast of the site should be sampled during the next sampling event. Monitoring wells BW112, BW111, SW104, SW109, SW103, SW102, BW110, and BW3 have not been sampled since 1990. It is necessary that ground water samples collected from these wells be analyzed for the contaminants of concern to establish if the contaminant plume has migrated to these areas and at these depths in the aquifer. Ground water samples should be collected from all wells at the site during the next round of sampling so that the location of the contaminant plume may be estimated. The water levels of all the wells at the site should be measured during the next round of sampling so that current potentiometric surface maps may be generated for the residuum zone and the bedrock.

✓ Covered  
1c  
In addition to the monitoring wells proposed (SW201, SW202, BW201, and BW202), a well pair should be installed northeast of monitoring well pair SW108 and BW108 on the opposite side of the creek. A well pair is necessary in this area to confirm that ground water in the bedrock discharges to the creek and does not flow below the creek toward the northeast.

✓ Covered  
3  
The aquifer of concern is unconfined and consists of three zones: saprolite, a transition zone which is composed of weathered and fractured rock, and bedrock. Limited information is available for the system flow at the site. Estimates of transmissivity were determined through slug and water pressure testing, but boundary effects, storage values, degree of anisotropy, and extent of the ground water communication between the zones in the aquifer are unknown. Because system flow is so complex, designing an efficient extraction system that will remediate the aquifer system will be

difficult. It is recommended that the extraction system be designed in two phases. Before any recovery wells are installed, all monitoring wells should be sampled so that present contaminant concentrations in ground water may be established. Based on the results of the ground water analysis, recovery wells should be installed along the downgradient extent of the contaminant plume, southeast of the site where the approximate leading edge of the plume is known. Once the recovery wells are installed, the aquifer should be stressed and monitored to determine the hydraulic properties of each zone, boundary effects, communication between the zones, etc. This information could then be applied to a model such as Modflow. Simulation of ground water flow and calibration of the model will provide additional information on system flow.

---

Once the ground water flow system and the extent of contamination is well understood, additional extraction wells should be installed at appropriate depths and locations if it is found that additional wells are necessary to remediate ground water at the site.

Hopefully these comments will be helpful in your review of the Remedial Design Work Plan. If you have any questions or comments, please contact me at x3866.

COMMENTS - WORKING  
COPIES

COMMENTS OUT 7-31-92

STATE CMMTS.

Date: July 17, 92

Number of Pages Including Cover Sheet: 6

**Please Deliver This Fax Message**TO: Ralph Howard  
NameRPM, EPA Region IV  
Organization/Department(404) 347-1695  
Fax Number(404) 347-7791  
Office PhoneFROM: Richard Haynes  
NameSolid & Hazardous Waste  
Bureau/Division/Section( )  
Fax Number(803) 734-5487  
Office Phone

SUBJECT/COMMENTS:

Comments on Medley Farms.

Fax Message

South Carolina  
Department of Health  
and  
Environmental Control2600 Bull Street  
Columbia, SC 29201

DHEC 24-052 (1/91)

STOPPED